



**Director of
Central
Intelligence**

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Soviet Capabilities for Strategic Nuclear Conflict, 1982-92

**National Intelligence Estimate
The Key Judgments**

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15 February 1983*

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SOVIET CAPABILITIES
FOR STRATEGIC NUCLEAR
CONFLICT, 1982-92

THE KEY JUDGMENTS

Information available as of 15 February 1983 was
used in the preparation of this Estimate.

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THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS, EXCEPT AS NOTED IN THE TEXT.

The following intelligence organizations participated in the preparation of the Estimate:

The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organization of the Department of State.

Also Participating:

The Assistant Chief of Staff for Intelligence, Department of the Army

The Director of Naval Intelligence, Department of the Navy

The Assistant Chief of Staff, Intelligence, Department of the Air Force

The Director of Intelligence, Headquarters, Marine Corps

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PREFACE

This year's NIE 11-3/8 is an updated version of last year's. We have incorporated new intelligence information and refined or changed some important judgments:

- Our judgments of certain Soviet offensive programs are more comprehensive, largely as a result of new information. For example, the Soviets now have flight-tested their new medium-size solid-propellant intercontinental ballistic missile, the SS-X-24, and a small solid-propellant ICBM. We are projecting that solid-propellant ICBMs will be deployed as mobile systems, as well as in silos, in the mid-to-late 1980s. We also have a more extensive understanding of long-range (3,000 kilometers) land-attack cruise missiles and their launch platforms, and have identified new larger sea- and ground-launched cruise missiles.
- We have expanded our discussion of projected Soviet strategic force deployments. We include quantitative measures of Soviet forces configured to conform to the US and Soviet arms control proposals, and we compare them with forces projected in the absence of arms control constraints.
- For the first time, we estimate, on the basis of recent analysis, the number of nondeployed strategic ballistic missiles that can be stored at identified storage areas.
- We have updated antiballistic missile (ABM) judgments to reflect those in NIE 11-13-82, "Soviet Ballistic Missile Defense," including issues dealing with deployment of widespread ABM defenses and Soviet capabilities.
- We are more concerned about Soviet efforts to develop non-acoustic antisubmarine warfare (ASW) detection methods.
- We now project that laser weapons for air defense will become available later in this decade.
- We have revised our discussion of the initiation of theater nuclear war, on the basis of how we believe the Soviets perceive it and how they relate it to intercontinental nuclear war. We judge that the Soviets see the use of long-range theater nuclear

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weapons as likely to be closely tied to the use of intercontinental nuclear weapons, and that they would see initial, localized use of battlefield nuclear weapons as probably being the last realistic opportunity to avoid large-scale nuclear war. As the likelihood of large-scale nuclear conflict increased, Soviet leaders would face the difficult decision of whether to seize the initiative and strike, as would be consistent with their general military doctrine, or to be more cautious in the hope of averting massive nuclear strikes on the Soviet homeland. There are no easy prescriptions for what the Soviets would actually do under a particular set of circumstances, despite the apparent doctrinal imperative to mount massive preemptive nuclear attacks.

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SCOPE NOTE

Like previous issuances in the series, this NIE 11-3/8 summarizes the latest developments and projects future trends in Soviet weapons and supporting systems for strategic nuclear conflict. Offensive attack force levels are projected, along with our estimates of the effects of factors influencing future Soviet policies and force developments, including the presence or absence of arms control constraints. The Estimate does not contain comparisons of present and future Soviet and US forces or measures of the destructive potential of the forces remaining to the two sides after a first strike. The war-fighting capabilities of Soviet strategic forces cannot be conveyed by simplified static and dynamic comparisons of Soviet and US offensive forces. A joint assessment of Soviet and US capabilities for nuclear conflict is being prepared under the direction of the Secretary of Defense and the Director of Central Intelligence, for issuance shortly after this Estimate is published.

In this NIE we are focusing on the USSR's strategy, plans, operations, and capabilities for strategic nuclear conflict as we believe Soviet leaders perceive them. We have emphasized Soviet views on the origin and nature of a US-Soviet nuclear conflict and how the Soviets would plan to operate and employ their forces during the various phases of such a war. There are, of course, major uncertainties about how well the USSR's present or future forces would be able to conduct a nuclear conflict according to Soviet strategy.

In evaluating their capabilities to accomplish strategic missions, the Soviets differ from us in terms of the operational factors they consider, the analytic techniques they use, and their criteria for success. In this Estimate we have assessed trends in Soviet capabilities in terms familiar to US policymakers and analysts, although these assessments do not necessarily correspond to those the Soviets would make. We do not know how the Soviets specifically would evaluate their capabilities, and we have limited information pertaining to how they measure their ability to accomplish strategic missions.

This Estimate is in three volumes:

- **Volume I** contains key judgments about Soviet programs and capabilities believed to be of greatest interest to policymakers and defense planners.

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- **Volume II** contains:
 - Key recent developments.
 - Discussion of the Soviets' strategic doctrine and objectives, including their views on the probable origin and nature of a US-Soviet nuclear conflict.
 - Descriptions of Soviet programs for the development and deployment of strategic offensive and defensive forces and supporting systems.
 - Projections of future Soviet strategic forces.
 - Discussion of Soviet concepts and plans for the operations of strategic forces during the several phases of a global conflict.
 - Trends in the USSR's capabilities to carry out some missions of strategic forces envisioned by Soviet concepts and plans for nuclear conflict.
- **Volume III** contains annexes with detailed force projections and weapon characteristics.

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KEY JUDGMENTS

Soviet leaders view strategic arms policy in the context of a persistent, long-term struggle between two world systems of socialism and capitalism, in which socialism—with Moscow in charge—is destined ultimately to triumph. From their viewpoint, progress in this struggle is measured by favorable shifts in the overall “correlation of forces”—political, ideological, economic, social, and military. The Soviets seek through strategic and other military programs to continue shifting the military component of the correlation of forces in favor of the USSR and its allies. They recognize that military power is their principal foreign policy asset and that continued high levels of defense investments are necessary to sustain and expand Moscow’s global role.

The Soviets believe that in the present US-Soviet strategic relationship each side possesses strategic nuclear capabilities that could devastate the other after absorbing an attack. Soviet leaders have stated that nuclear war with the United States would be a catastrophe that must be avoided if possible and that they do not regard such a conflict as inevitable. They have been willing to negotiate restraints on force improvements and deployments when it serves their interests. Nevertheless, they regard nuclear war as a continuing possibility and have rejected mutual vulnerability as a desirable or permanent basis for the US-Soviet strategic relationship. They seek superior capabilities to fight and win a nuclear war with the United States, and have been working to improve their chances of prevailing in such a conflict. A tenet in their strategic thinking holds that the better prepared the USSR is to fight in various contingencies, the more likely it is that potential enemies will be deterred from initiating attacks on the Soviet Union and its allies and will be hesitant to counter Soviet political and military actions.

The Soviets are intent on improving all aspects of their strategic forces and supporting elements. We are currently aware of more than 30 new strategic systems that are in various stages of development. Over the longer term, we believe the Soviets have an expanded number of options in deciding on the size, mix, and characteristics of their strategic nuclear forces and supporting systems.

The most significant new weapon systems projected for deployment in Soviet strategic offensive forces are:

- Solid-propellant intercontinental ballistic missiles (ICBMs) for both silo and mobile basing. The SS-X-24 medium-size solid-

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propellant ICBM, which they have just started to test, will probably replace silo-based SS-17 and SS-11 ICBMs beginning in about 1985. A small solid-propellant ICBM, which began flight-testing in February 1983, will probably be deployed as a mobile system beginning in 1986, as well as in silos. A solid-propellant ICBM could possibly be deployed in a rail-mobile mode in the late 1980s.

- Improvements in hard-target-capable SS-18 and SS-19 ICBMs, although they will become increasingly vulnerable to US missiles in the late 1980s. We believe the Soviets will begin flight-testing of these improved ICBMs in 1983.
- The Typhoon-class nuclear-powered ballistic missile submarine (SSBN) and its SS-NX-20 missile system to become operational in 1983. The Soviets will probably begin flight-testing of a follow-on to the SS-N-18 submarine-launched ballistic missile (SLBM) in 1983.
- Other new ICBM and SLBM improvements already in development, for deployment by the end of the decade. The Soviets regularly field a major improvement to their key missile systems about every five years.
- New long-range (3,000 kilometers) land-attack cruise missiles for deployment on submarines (SLCMs) as early as 1983 and on ground launchers (GLCMs) and aircraft (ALCMs) as early as 1984.
- Deployment of the new Blackjack A bomber as early as 1986, as well as a new variant of the Bear bomber capable of carrying ALCMs, which could be deployed as early as 1984. These new bombers, together with their cruise missiles, will give the Soviets a modern intercontinental bomber force that could vastly complicate US air defenses.

If Soviet strategic force deployments proceeded without arms control constraints, we project that the number of deployed ICBMs and SLBMs would increase from the present number (more than 2,300 missiles) by 13 to 25 percent over the next 10 years—the increase resulting primarily from mobile ICBM deployments. The number of deployed ballistic missile warheads would increase by a much larger number—85 to more than 190 percent—from the estimated 7,300 at the end of 1982, resulting in 13,000 to 21,000 ballistic missile warheads by the early 1990s. Soviet deployed ICBMs and SLBMs, if constrained

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by the US strategic arms reduction talks (START) proposal would decrease by about 65 percent from current deployments, with a 30-percent decrease in ballistic missile warheads. Soviet deployed ICBMs and SLBMs if constrained by the Soviet START proposal would decrease by about 30 percent from current deployments, but the number of ballistic missile warheads would increase slightly. Although the number of Soviet bombers increases only slightly, the number of bomber weapons increases substantially in the next 10 years—primarily because of the large payload of the Blackjack A bomber to be deployed later in the decade. We expect the Soviets to deploy about 1,500 to 2,000 long-range land-attack cruise missiles over the next 10 years. Many of these bomber weapons and cruise missiles—air-, sea-, and ground-launched—would, however, be allocated for theater, and not intercontinental, attack. Soviet ICBM and SLBM forces will continue to be the primary elements of the intercontinental attack forces.

Despite these impressive offensive force developments, the Soviets' potential future developments in strategic defenses could be of greater significance to the perceptions, and perhaps the reality, of the strategic balance. We are particularly concerned about their growing potential for widespread deployment of defenses against ballistic missiles well beyond the limits of the Antiballistic Missile Treaty using ABM systems currently in development. The Soviets' air defenses are undergoing significant changes, and they will have improving capabilities to threaten current types of bombers at low altitude and, to a lesser extent, cruise missiles. There is an alternative view that this Estimate substantially understates the capability of the Soviet air defense system to defend key target areas against low-altitude penetrators. This view is presented in more detail in the Summary and in volume II.¹ According to another alternative view, the Soviet Union will not have the capability in this decade to deploy strategic defenses that would significantly affect the US-Soviet nuclear relationship.²

Some key trends for strategic defense include:

- Extensive deployments of new low-altitude-capable fighters and SA-10 surface-to-air missiles (SAMs), and initial deployment of IL-76 Mainstay airborne warning and control system (AWACS) aircraft in late 1983 or early 1984.

¹ The holder of this view is the Assistant Chief of Staff for Intelligence, Department of the Army.

² The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

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- Deployment of the SA-X-12 SAM. It is premature to judge the capabilities of this new advanced SAM system. However, if certain features that we have assumed for this system are realized, its potential contribution to ballistic missile defenses would be of growing concern as the system became widely deployed in the USSR and Eastern Europe in the mid-to-late 1980s.
- The upgrading of ABM deployments at Moscow and active engagement in ABM research and development programs. The available evidence does not indicate with any certainty whether the Soviets are making preparations for deployments beyond the limits of the ABM Treaty—100 ABM launchers at Moscow—but it does show they are steadily improving their ability to exercise options for deployment of widespread ballistic missile defenses in the 1980s. If the Treaty were abrogated by either the United States or the USSR, we believe the Soviets would undertake rapidly paced ABM deployments to strengthen their defenses at Moscow and cover key targets in the western USSR, and to extend protection to key targets east of the Urals. Widespread defenses could be in place by the late 1980s or early 1990s.

We have major uncertainties about how well a Soviet ABM system would function and about the degree of protection future ABM deployments would afford the USSR. We judge that, in evaluating the technical performance of the ABM systems they could deploy, the Soviets probably would not have high confidence in how well these systems would perform against a large-scale, undegraded US missile attack, especially in the late 1980s by improved US forces. However, the Soviets would probably view their ballistic missile defenses as having considerable value in reducing the impact of a degraded US retaliatory attack if the USSR succeeded in carrying out a well-coordinated, effective initial strike. Also, widespread Soviet defenses, even if US evaluations indicated they could be overcome by an attacking force, would complicate US attack planning and create major uncertainties about the potential effectiveness of a US strike.

Soviet efforts in two technology areas—nonacoustic sensors for antisubmarine warfare (ASW), and directed-energy weapons—could, if the Soviets succeed in major breakthroughs, have profound consequences, particularly in areas of strategic defensive capabilities. The Soviets are intensively investigating these technologies and would place

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a high priority on deploying any capabilities that might result from their research efforts:

- Over the past several years we have learned that the Soviet research program to detect submarines from space is much more extensive than we had previously believed. We have only limited knowledge of the precise nature of the program and cannot state with confidence that the Soviets have not had some success in their research.

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[redacted] We cannot judge whether the Soviets will achieve a technological breakthrough in remote sensing of submarine-generated effects during the next 10 years. Even if such a breakthrough were to occur, we do not believe, in view of the operational considerations and the length of time needed for full system deployment, that a system which could simultaneously track a substantial fraction of the US SSBN force is a realistic possibility during the period of this Estimate. We are more uncertain, and hence more concerned, about the capabilities that could potentially be realized and deployed in the mid-to-late 1990s. An alternative view is that [redacted]

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[redacted] the Soviets have not had significant success in these techniques and are unlikely to achieve a technological breakthrough in remote sensing of submarine-generated effects during the next 10 years.³

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- Directed-energy weapons potentially could be developed for antisatellite (ASAT) applications, air defense, and, in the longer term, ballistic missile defense (BMD). There is strong evidence that the Soviets are pursuing development of high-energy laser weapons. We project that lasers for air defense are the only laser weapons for such applications likely to become available for operational use during the period of this Estimate. We believe that within the next 10 years, however, they will test prototype space-based lasers for potential applications to ASAT or BMD weapons. We also expect that during the 1980s the Soviets will test the feasibility of ground-based lasers for BMD applications.

³ The holder of this view is the Director of Naval Intelligence, Department of the Navy.

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Training of Soviet forces for a global nuclear conflict is increasingly broad in scope and complex in the operational factors taken into account. The Soviets recognize that numerous complications and degradations would affect planned operations, particularly in the unprecedentedly difficult nuclear environment. The inherent uncertainties of warfare cannot be eliminated by training for fighting under various conditions, but the Soviets believe that their ability to continue to operate effectively in adverse conflict situations would be enhanced as a result of the experience gained [REDACTED]

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The Soviets apparently believe that a major nuclear conflict, if it occurred, would be likely to arise out of a NATO-Warsaw Pact conventional conflict preceded by a political crisis period that could last several weeks or longer. We believe they would anticipate a conventional phase as lasting from a few days to as long as several weeks. The Soviets see little likelihood that the United States would initiate a surprise attack from a normal peacetime posture; we believe it is unlikely that the Soviets would mount such an attack themselves. Key objectives of the Soviets in the conventional phase would be to weaken the enemy's theater-based and sea-based nuclear capability, while protecting their own nuclear force.

The Soviets, in our judgment, are unlikely to initiate nuclear conflict on a limited scale, with small-scale use confined to the immediate combat zone, because they would probably see it as being to their advantage instead to keep the conflict at the conventional force level. However, they appear to be developing a means for dealing with the possibility of NATO's initiation of such limited nuclear use, without the USSR's necessarily having to go to large-scale nuclear war. We believe they would see an initial localized use of nuclear weapons as probably being the last realistic opportunity to avoid large-scale nuclear war. Once large-scale use of nuclear weapons in the theater occurred, the Soviets plan for the likely and imminent escalation to intercontinental nuclear war.

As the likelihood of large-scale nuclear conflict increased, Soviet leaders would face the difficult decision of whether to seize the initiative and strike, as would be consistent with their general military doctrine, or to be more cautious in the hope of averting massive nuclear strikes on the Soviet homeland. There are no easy prescriptions for what the Soviets would actually do under a particular set of circumstances, despite the apparent doctrinal imperative to mount massive preemptive nuclear attacks:

- We are unable to judge what information would be sufficiently convincing to cause Soviet leaders to order a massive preemptive attack.

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- They would be more likely to seize the initiative by launching intercontinental nuclear strikes if the war had already reached the level of theater nuclear conflict, than if it was still at a conventional level. We believe they would be likely to launch a preemptive intercontinental strike if there had been large-scale theater nuclear strikes against the western USSR.
- If they acquired convincing evidence that a US intercontinental strike were imminent, they would try to preempt. We believe that they would be more likely to act on the basis of ambiguous indications and inconclusive evidence of US strike intentions if a theater nuclear conflict were under way than during a crisis or a conventional conflict.
- For reasons such as lack of convincing evidence from their strategic warning systems or fear of unnecessarily or mistakenly initiating intercontinental nuclear war, the Soviets might not mount a preemptive strike.
- We believe the Soviets place considerable emphasis on assessing their strategic offensive capabilities under conditions where they retaliate after the United States launches a major strike. These would include scenarios where they are able to launch varying portions of their forces on tactical warning (LOTW), as well as the most stressful scenario—retaliation only after absorbing a well-coordinated US counterforce attack. For the Soviets, these retaliation scenarios are the most critical in an evaluation of their capabilities and probably the ones to which they devote most of their training.

The Soviets' offensive objectives in carrying out large-scale nuclear strikes would be to neutralize US and Allied military operations and warmaking capabilities. Their large-scale intercontinental strikes would be conducted primarily with ICBMs and SLBMs. We believe that the Soviets would conduct repeated attacks in an attempt to destroy, degrade, and disrupt the United States' capability to employ nuclear forces, and the reconstitution capabilities of its nuclear forces and their supporting infrastructure. They would also attempt to isolate the United States from the theater campaign by attacking its power projection capabilities. Depending on the circumstances, they might also attempt to reduce US military power in the long term by attacking US military-industrial capacity. Limiting the initial strikes only to command, control, and communications targets, or only to a portion of US strategic forces such as ICBM silos, is not consistent with the available evidence.

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The Soviets probably have plans to reconstitute some surviving general purpose and strategic forces and to occupy substantial areas of Western Europe, while neutralizing the ability of US and Allied nuclear forces to interfere with these objectives. They prepare for combat operations that could extend weeks beyond the intercontinental nuclear phase. Some Soviet SSBNs in protected areas near the Soviet homeland would be withheld for potentially protracted nuclear operations, others for longer term reserve. The Soviets would clearly prefer to accomplish their objectives quickly, but recognize that the later phases could be protracted, given the difficulty and complexity of conducting operations following massive nuclear strikes.

We do not know how the Soviets would assess their prospects for prevailing in a global nuclear conflict. Sizable forces on both sides would survive massive nuclear strikes:

- The Soviets have enough hard-target-capable ICBM reentry vehicles (RVs) today to attack all US missile silos and launch control centers in a first strike. We project that, over the next 10 years, the USSR will have substantially larger numbers of hard-target-capable RVs and that the effectiveness of individual Soviet ICBMs against hardened targets will increase. In a well-executed strike, Soviet ICBMs would have the potential—using two RVs against a Minuteman silo—to achieve a damage expectancy of about 75 to 80 percent today, and about 90 percent by the mid-1980s, although there are significant uncertainties in these percentages because of our uncertainties about Soviet ICBM characteristics. Although the Soviets' hard-target capabilities will increase substantially, we believe that they will still be concerned that at least a portion of the US ICBM force would be launched while under attack.
- Soviet offensive forces will not be able to reliably target and destroy patrolling US SSBNs, alert aircraft, aircraft in flight, or land-mobile missiles, particularly those beyond the range of tactical reconnaissance systems.
- Soviet mobile missiles and SSBNs patrolling in waters near the USSR are highly survivable as are most silo-based ICBMs and perhaps dispersed aircraft. We believe the Soviets can launch ICBMs on tactical warning, assuming their warning and control systems are undegraded. However, with the increasing vulnerability of Soviet ICBM silos during the period of this Estimate, as the accuracy of US weapons improves, the Soviets will be faced

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with more difficult problems in assuring adequate retaliatory capabilities in their critical planning scenario in which they are struck first. We believe the Soviets' efforts to expand the capabilities of their command and control network and SLBM force, and to develop mobile ICBMs, reflect their concerns about maintaining the capability to fulfill the missions of their strategic nuclear forces.

Moreover, the Soviets are well aware of their inability to prevent massive damage to the USSR with their strategic defenses even with the improvements taking place in these forces. They also recognize that US strategic defenses cannot prevent massive damage.

We believe that the Soviets' confidence in their capabilities for global conflict probably will be critically dependent on command and control capabilities, and their prospects for disrupting and destroying the ability of the United States and its Allies to command and to operate their forces. Although US attacks could destroy many known fixed command, control, and communications facilities, elements of the political leadership and military commands probably would survive, and redundancy in Soviet strategic communications would prevent loss of any one channel from disabling the overall system. We believe the Soviets would launch continuing attacks on US and Allied strategic command, control, and communications to prevent or impair the coordination of retaliatory strikes, thereby easing the burden on Soviet strategic defenses, and impairing US and Allied abilities to marshal military and civilian resources to reconstitute forces.

The evidence shows clearly that Soviet leaders are attempting to prepare their military forces for the possibility of having to fight a nuclear war and are training to be able to maintain control over increasingly complex conflict situations. They have seriously addressed many of the problems of conducting military operations in a nuclear war, thereby improving their ability to deal with the many contingencies of such a conflict, and raising the probability of outcomes favorable to the USSR. There is an alternative view that wishes to emphasize that the Soviets have not resolved many of the critical problems bearing on the conduct of nuclear war, such as the nature of initiation of conflict, escalation within the theater, and protracted nuclear operations. According to this view, the Soviets recognize that nuclear war is so destructive, and its course so uncertain, that they could not expect an outcome that was "favorable" in any meaningful sense.⁴

⁴ The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.

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The evidence that we have on how the Soviets would plan to conduct a successful military campaign provides insight into how they would seek to end a nuclear war on their terms—by neutralizing the ability of US intercontinental and theater nuclear forces to interfere with Soviet capabilities to prevail in a conflict in Eurasia.

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